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动物分类学报

TWO NEW SPECIES OF POTANINI GROUP OF TENTHREDO L. FROM CHINA (HYMENOPTERA, TENTHREDINIDAE)

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Abstract *Tenthredo yingkehei* sp. nov., *Tenthredo danbanica* sp. nov. are described from Henan and Sichuan Provinces, China. *T. ruzickai* is redescribed. The type specimens of the new species are deposited in the Insect Collection of Central South University of Forestry and Technology, Changsha, Hunan Province, China.

Key words Hymenoptera, Tenthredinidae, *Tenthredo*, new species, China.

Tenthredo L. *s. str.* (excluding *Jermakia* Jakovlev, *Propodea* Malaise, *Metallopeus* Malaise, *Peus* Konow, *Casipteryx* Taeger and *Adungia* Malaise) is the largest genus of Tenthredinidae with more than 1 000 valid species. About 600 species have been recorded from eastern Asia till 2008. Among them, 284 species have been recorded in China (Wei *et al.*, 2006; Wei, 2006; Wei & Nie, 2006; Niu & Wei, 2008; Yan & Wei, 2008; Haris and Roller, 2007).

In this paper, two new species of *potanini* group of *Tenthredo* L. are described from Henan and Sichuan Provinces. Both of them are similar to *T. ruzickai* Haris *et* Roller, 2007. Some important characters in the original description of *T. ruzickai* Haris *et* Roller were overlooked, the species is redescribed and illustrated.

The type specimens of the new species are deposited in the Insect Collection of Central South University of Forestry and Technology, Changsha, Hunan Province, China.

1 *Tenthredo yingkehei* sp. nov. (Figs. 1-6)

♀ Body length 10.5 mm (Fig. 1). Body yellowish brown with greenish tinge, head above antennal sockets and upper 1/4 of hind orbit black except a small pale dot on temple nearby eye, apex of mandible dark reddish brown, antenna entirely black; a stripe on dorsal side of propleuron, a transversal furrow in the middle of pronotum, prescutum and scutum, bottom of parapsis, posterior 1/3 of mesoscutellum, depressed parts of metanotum except for postnotum, black; abdomen dorsally with a large black macula covering tergites 1-7 and anterior half of tergite 8, posterior margin of tergite 1, lateral sides of each tergites and tergites 9-10 entirely, each sternites and ovipositor entirely yellow. Legs yellow except an obscure stripe on dorsal side of each tibia and apex of hind tibia black brown, tarsi of foreleg and middle leg dark greenish, apical margin of each tarsomere of foreleg, dorsal side and apex of each tarsomere of middle leg and hind tarsus entirely black. Wings evenly brownish infuscate, vein C and stigma yellow brown. Body hairs black brown dorsally and silver ventrally.

Head densely punctured dorsally, frons and nearby densely microsculptured, mat; postocellar area sparsely punctured with shining interspaces, head ventrally minutely and feebly punctured, basal part of mandible sparsely punctured, clypeus almost impunctate, punctures on hind orbit minute and slightly denser. Pronotum shallowly punctured, shining; mesonotum densely punctured with extreme narrow but shining interspaces, anterior half of mesoscutellum hardly punctured, strongly shining, posterior slop of mesoscutellum coarsely and densely punctured, posttergite sparsely punctured with shining interspaces, metascutellum impunctate; mesepisternum indistinctly punctured and densely rugose, mat; mesepimeron and ventral side of mesopleuron finely punctured, feebly shining; metapleuron strongly shining. Outer side of hind coxa polished, shining. First abdominal tergite indistinctly microsculptured, strongly shining, other tergites densely cross-striated, almost mat.

Clypeus incised to a depth about 1/3 length of clypeus with bottom roundish, lateral lobe subtriangular; labrum quadrate, apex truncate (Fig. 2); mandible short and weakly bent at apex, apical dent short; inner margins of eyes distinctly convergent downwards, distance between them below distinctly narrower than height of eye (33∶50); malar space 1.8 times diameter of lateral ocellus; supra-antennal tubercles indistinct, merged with frontal walls; middle fovea broad and shallow, with a low and obtuse middle ridge anteriorly; lateral foveae punctiform, distinctly deeper than middle fovea; interocellar and postocellar furrows distinct and straight; OOL∶POL∶OCL= 16∶6∶9; postocellar area transverse, almost 2 times as broad as long, lateral furrows deep, middle part slightly curved outwards, divergent backwards; head in dorsal view feebly dilated behind eyes and then distinctly narrowed, slightly longer

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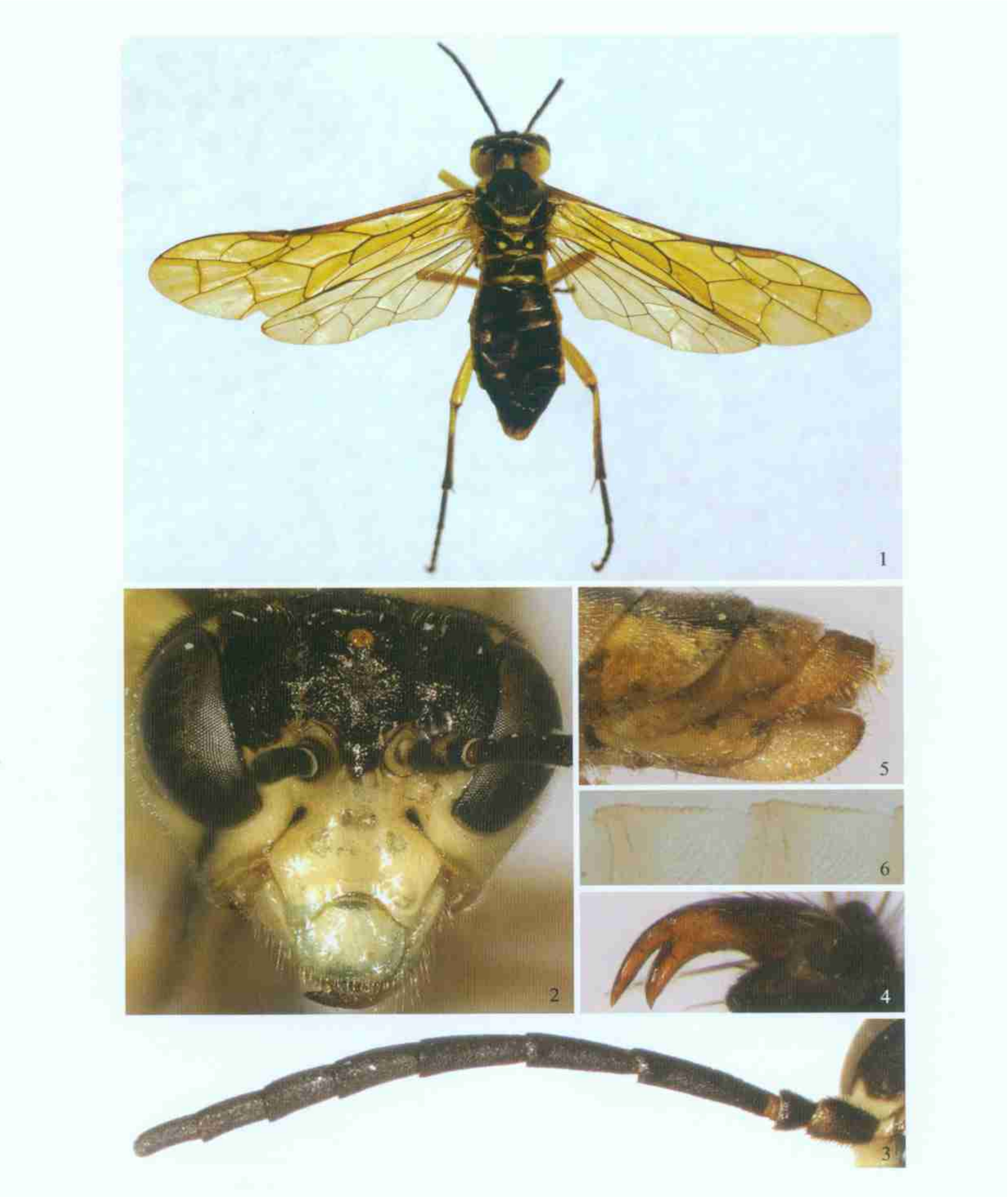


Figs 1-6. *Tenthredo yingkehei* sp. nov. (holotype) 1. Adult female. 2. Head in front view. 3. Antenna. 4. Claw. 5. Sheath in lateral view. 6. The 6th-7th serrulae.

than half length of eye; occipital carina low and fine, complete, without fold, posterior margin of postocellar area carinate. Antenna filiform, clearly shorter than head and thorax together, pedicle as long as broad, third antennomere 1.5 times as long as fourth antennomere, penult antennomere 2.3 times as long as broad (Fig. 3). Mesoscutellum elevated, with indistinct peak, posterior slop with fine middle carina; posttergite with a low middle carina; propleura narrowly meet ventrally; mesepisternum triangularly elevated at middle, ventral thorn absent; posterior margin of metepimeron roundly convex backward. Hind tibia shorter than all tarsomeres together, inner tibial spur half as long as basitarsus, hind basitarsus slightly shorter than following 3 tarsomeres together; claw without basal lobe, inner tooth distinctly shorter than outer tooth (Fig. 4). Hind anal cell sessile, or with a punctiform petiole. Ovipositor slightly shorter than fore femur, about as long as hind basitarsus, much shorter than middle tibia, sheath 2 times as long as basal plate (Fig. 5). Lancet with 21 low and flat serrulae, middle serrulae each with 2 obscure inner subbasal teeth and 13-14 distinct outer subbasal teeth, middle annular spine bands broadly meeting to each other, 6th-7th serrulae as in Fig. 6.

Male. Unknown.

Distribution. Henan, China.

Etymology. This species is named after the collector of the types.

Holotype ♀, Baiyunshan (34°02′ N, 112°00′ E; alt. 1 500 m), Songxian, Henan Province, China, 26 July 2003, HE Ying-Ke. Paratypes: 1 ♀, Baiyunshan (34°02′ N, 112°00′ E; alt. 1 500 m), Songxian, Henan Province, China, 26 July 2003, HE Ying-Ke, 1 ♀, Baiyunshan (34°02′ N, 112°00′ E; alt. 1 500 m), Songxian, Henan Province, China, 20 July 2003, HE Ying-Ke.

Remarks. This new species is a member of *Tenthredo potanini* species group and is quite similar to *Tenthredo ruzickai* Haris *et* Roller, 2007. However, the new species differs from the latter in malar space broad, about 1.8 times longer than diameter of ocellus; distance between eyes below shorter than height of eye clearly; the first abdominal tergite black with posterior 1/3 yellow brown; antennal flagellum slender, the 7th and 8th antennomeres both about 2.3 times as long as broad; the postocellar area almost 2 times as wide as long; labrum and clypeus about 1.2-1.3 times wider than long; ovipositor short, about as long as hind basitarsus, much shorter than middle tibia; anterior slope of mesoscutellum impunctate, strongly shining; sheath entirely yellow brown; serrulae very flat, middle serrulae each with about 11-12 outer subbasal teeth.

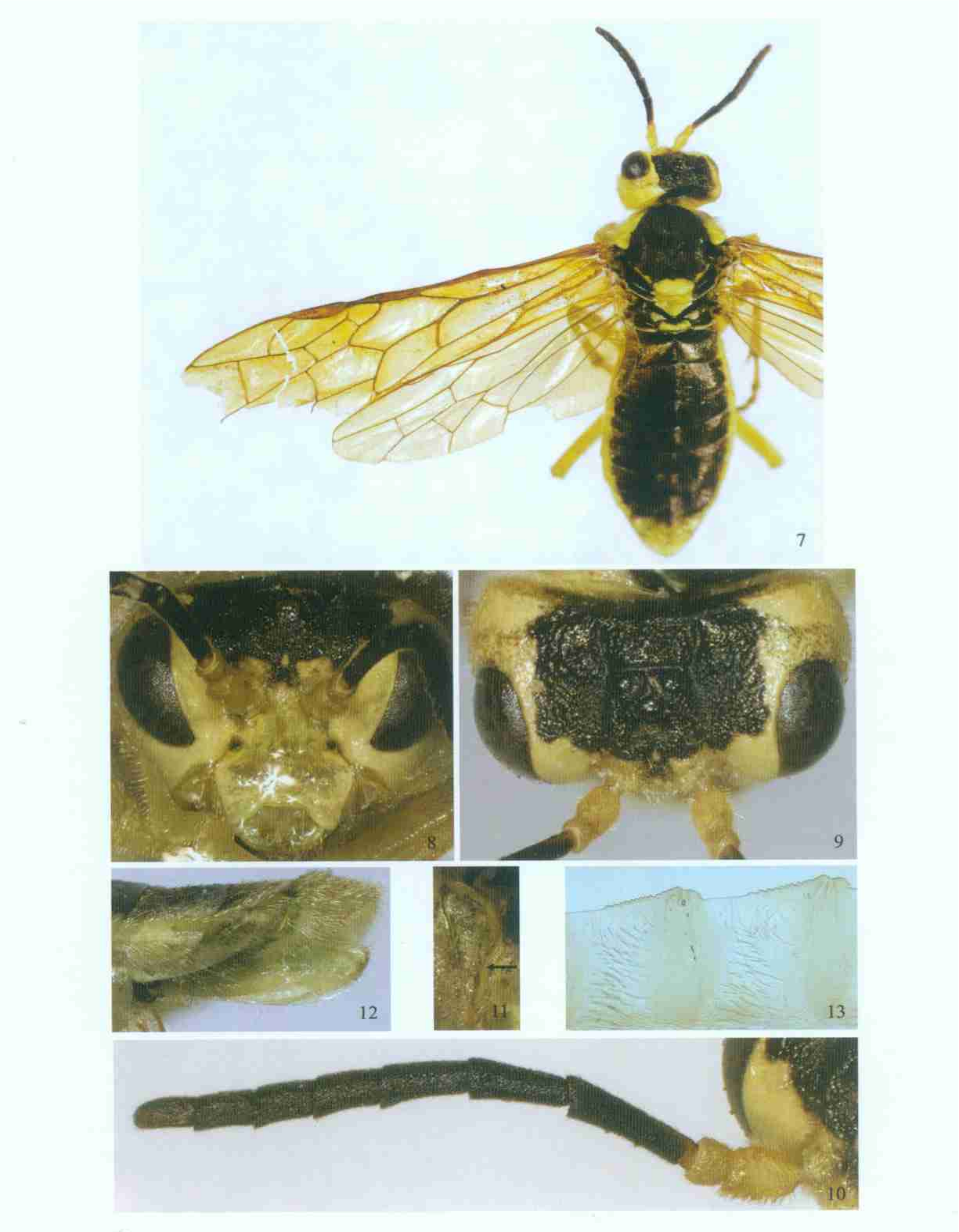
2 *Tenthredo danbanica* **Wei** *et* **Niu sp. nov.** (Figs. 7-13)

♀ Body length 8.5 mm (Fig. 7). Body pale yellow brown with greenish tinge, apex of mandible dark reddish brown, following parts black: a large quadrate macula covering frons, postocellar area and neighboring part of inner orbit and temple, laterally not touching eyes (Figs. 8-9); antenna except scape and pedicellum; a middle transversal stripe on furrow of pronotum, prescutum, scutum except posterior margin, parapsis, metanotum except metascutellum and lateral carina; dorsal side of tergites 1-7 and anterior margin of tergite 8 except narrow lateral margins. Legs almost entirely yellow, apex of each tarsus dark brown. Wings evenly brownish infuscate, veins and stigma brown entirely. Body hairs brown dorsally and silver ventrally, setae on sheath silver.

Frons and nearby densely microsculptured, mat; upper inner orbit, temple, postocellar area rugose with large punctures; clypeus, labrum, base of mandible polished, strongly shining; other parts of head microsculptured feebly. Pronotum densely but shallowly punctured, less shining; mesonotum densely punctured, interspaces very narrow and microsculptured, mat; mesoscutellum densely punctured; posttergite microsculptured with some large punctures; metascutellum shallowly punctured; upper half of mesepisternum densely punctured, rugose; ventral part of mesepisternum shallowly and densely punctured, mesepimeron densely microsculptured; metapleuron feebly microsculptured; abdominal tergites strongly microsculptured, almost mat. Outer side of hind coxa sparsely and shallowly punctured, shining.

Clypeus incised to a depth about 1/3 length of clypeus with bottom truncate, lateral lobe triangular (Fig. 8); labrum transversal, apex obtusely roundish; mandible short and weakly bent at apex, apical dent short; inner margins of eyes distinctly convergent downwards, distance between them below broader than height of an eye (45∶38), and broader than clypeus (45∶37); malar space 2 times diameter of lateral ocellus; supra-antennal tubercles indistinct, merged with frontal walls; middle fovea broad and shallow, with a low and obtuse middle ridge anteriorly; lateral foveae punctiform, distinctly deeper than middle fovea; interocellar and postocellar furrows distinct and straight; OOL∶POL∶OCL=16∶6∶11; postocellar area transverse, 2 times as broad as long, lateral furrows deep, middle part distinctly curved outwards, divergent backwards; head in dorsal view feebly dilated behind eye, about 3/4 length of eye; occipital carina low and fine, complete without fold, hind margin of postocellar area carinate. Antenna short and filiform, clearly shorter than head and thorax together (9∶11), pedicle as long as broad, third antennomere 1.6 times as long as fourth antennomere, penult antennomere 1.5 times as long as broad (Fig. 10). Mesoscutellum roundly elevated, without peak, posterior slop without middle carina; posttergite with a high middle carina; propleura narrowly meet ventrally; mesepisternum triangularly elevated at middle, ventral thorn absent; posterior margin of metepimeron distinctly, roundly incised (Fig. 11). Hind tibia hardly shorter than tarsus, inner tibial spur about half as long as basitarsus, hind basitarsus as long as following 3 tarsomeres together, claw without basal lobe, inner tooth shorter than outer tooth. Hind anal cell sessile. Ovipositor as long as fore femur, much shorter than middle tibia (56∶71) but longer than hind basitarsus (56∶43), sheath 2 times as long as basal plate (Fig. 12). Lancet with 21 low and flat serrulae, middle serrulae each with 2 obscure inner subbasal teeth and 14-15 distinct outer subbasal teeth, middle annular spine bands slightly broader than distance between spine bands; 6th-7th serrulae as in Fig. 13.

Male. Unknown.



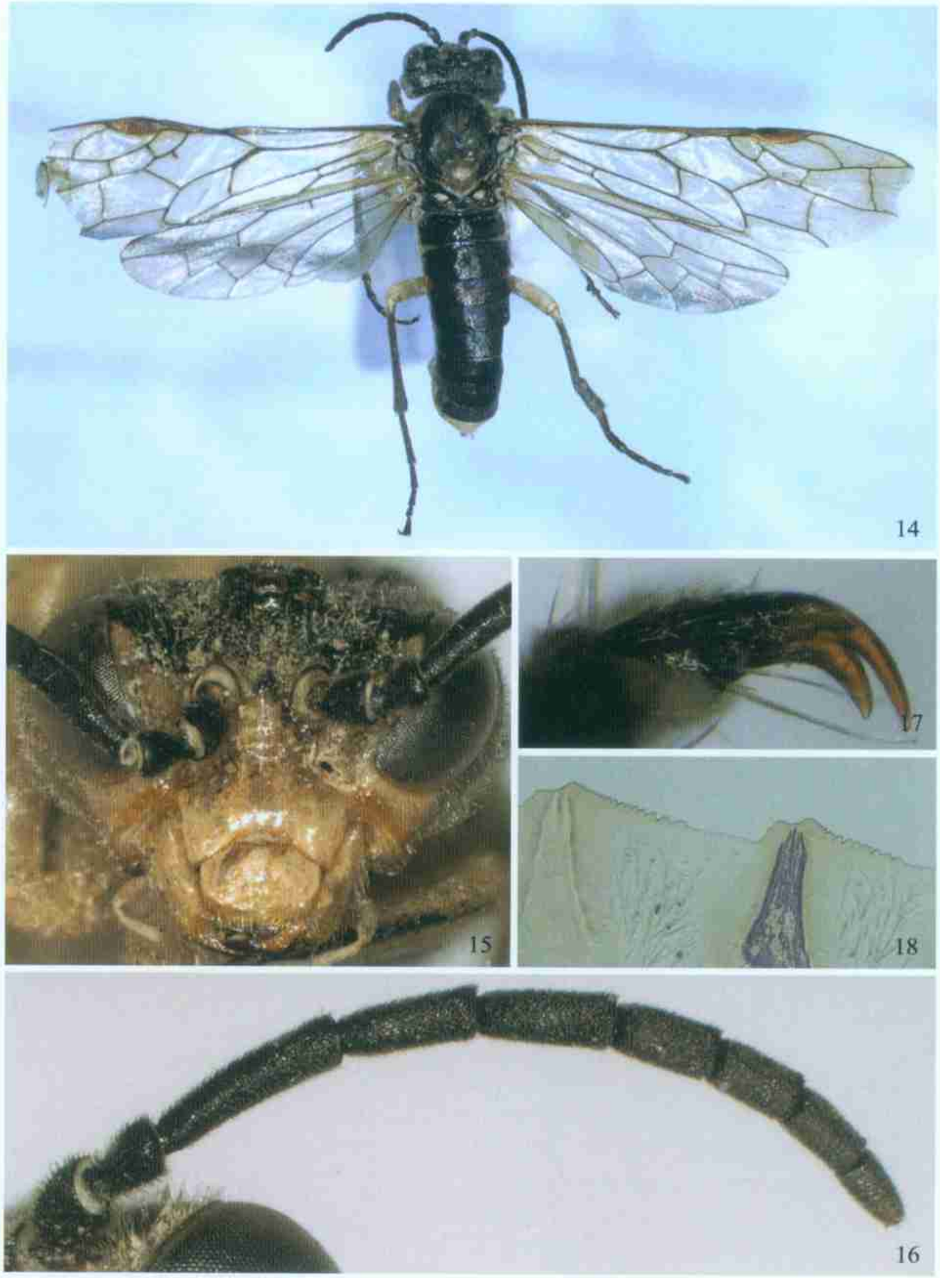
Figs 7-13. *Tenthredo danbanica* sp. nov. (holotype) 7. Adult female. 8. Head in front view. 9. Head in dorsal view. 10. Antenna. 11. Metepimeron. 12. Sheath in lateral view. 13. The 6th-7th serrulae.

Distribution. China (Sichuan).

Etymology. This species is named after the type locality.

Holotype ♀, Kuiyonggou (30°47′ N, 101°57′ E, 2 000 m), Danba, Sichuan, 24 Aug. 2005, SHI Fu-Ming.

Remarks. This new species is similar to *Tenthredo ruzickai* Haris *et* Roller, 2007 and *T*. *yingkchei* Wei *et* Niu, sp. nov. However, it differs from the latter two species in scape and pedicellum yellow brown; eyes small, distance between them below clearly longer than height of eye; bottom of anterior incision of clypeus



Figs 14-18. *Tenthredo ruzickai* Haris *et* Roller, 2007 (holotype) 14. Adult female. 15. Head in front view. 16. Antenna. 17. Claw. 18. The 6th-7th serrulae.

subtruncate; apex of labrum roundish; black macula on dorsal side of head quadrate, not touching eye laterally; legs entirely yellow brown; posttergite with sharp middle carina; abdominal tergites 1-9 all strongly cross-striated and almost mat; posterior margin of metepimeron roundly incised; ovipositor much shorter than middle tibia but clearly longer than hind basitarsus; malar space 2 times as long as diameter of ocellus, middle serrulae slightly oblique with about 13-14 outer subbasal teeth.

3 *Tenthredo ruzickai* **Haris et Roller, 2007** (Figs. 14-18)

Tenthredo ruzickai Haris *et* Roller, 2007, Natura Somogyiensis, 10: 170.

Supplementary description. Body in dorsal view as in Fig. 14. Linear posterior margin of first abdominal tergite pale brown. Anterior slope of mesoscutellum densely punctured, less shining; first abdominal tergite hardly coriaceous, strongly shining, other tergites densely cross-striated, almost mat; clypeus and labrum transversal, about 1.7 times wider than long, apex of labrum truncate, bottom of anterior incision of clypeus round (Fig. 15); malar space as long as diameter of lateral ocellus; eyes medium sized, distance between them as long as height of eye, hind margin of postocellar area carinate. Antenna shorter than head and thorax together, third antennomere 1.5 times longer than fourth antennomere, 7th and 8th antennomeres each about 1.7 times longer than broad (Fig. 16). Mesoscutellum roundly elevated without distinct peak, posttergite without middle carina; propleura narrowly meet ventrally; posterior margin of metepimeron roundly convex backward. Hind tibial spurs subequal in length, about half length of hind basitarsus (13:27); claw as in Fig. 17, inner tooth shorter than outer tooth. Lateral lobe of 7th abdominal sternite distinctly protruding; ovipositor as long as middle tibia, sheath 1.9 times longer than basal plate; lancet with 21 oblique serrulae, middle serrulae each with about 15-16 outer subbasal teeth and 2 obscure inner subbasal tooth (Fig. 18); middle annular spine bands broad, merging together at middle.

Specimens examined. 1 ♀, holotype, "China, Gansu Province, XIAHE (= Labrang) env., (35°11.5′N, 102°30.6′E; alt. 2 940 m (GPS)), 19-22 June 2005, J. Hajek, D. Král & J. Ružička leg."; "Holotype, Tenthredo ruzickai sp. n., Haris, 2007" (Deposited in Hungarian Natural History Museum, Hungary).

Distribution. China (Gansu).

4 T. ruzickai **complex of** potanini **group of** Tenthredo **L.**

The two new species described above are quite similar to *T. ruzickai* Haris *et* Roller, 2007. These three species form a close complex in the *potanini* species group of *Tenthredo*, differing from other species of the group in following characters combination: dorsal side of head, thorax and abdomen largely black but ventrally entirely yellow brown with green tinge, each femur entirely yellow; mesoscutellum and posttergite yellow, abdomen without middle transversal pale band or spot; antenna shorter than head and thorax together, the third antennomere about 1.5-1.6 times as long as the fourth antennomere; mandibles not elongate; postocellar area broader than long; wings brownish hyaline, hind wing with anal cell sessile, vein C and stigma pale brown; dorsal side of head and mesepisternum densely punctured; abdominal tergites distinctly microsculptured; lateral lobe of 7th abdominal sternite roundly protruding; annular suture simple. The 3 species of *T. ruzickai* complex can be separated by following key.

1 Scape and pedicellum black; eyes large, distance between them below narrower than or as long as height of eye; bottom of anterior incision of clypeus round; apex of labrum truncate; upper side of head almost entirely black, temple with a small yellow dot; tibia at least partly black, dorsal side of hind tarsus black; posttergite without middle carina; abdominal tergites 2-8 much more strongly cross-striated than first tergite, which is almost polished, strongly shining; posterior margin of metepimeron roundly convex backward ………………………………… 2

Scape and pedicellum yellow brown; eyes small, distance between them below clearly longer than height of eye; bottom of anterior incision of clypeus subtruncate; apex of labrum round; black macula on dorsal side of head quadrate, not touching eye laterally; legs entirely yellow brown; posttergite with sharp middle carina; abdominal tergites 1-9 all strongly cross-striated and almost mat; posterior margin of metepimeron distinctly, roundly incised. Sichuan ……… T. danbanica **sp. nov.**

2 Malar space as long as diameter of ocellus; distance between eyes below as long as height of eye; pale margin of first abdominal tergite linear; 7th and 8th antennomere both 1.7 times as long as broad; postocellar area 1.6 times wider than long; labrum and clypeus both about 1.7 times wider than long; ovipositor as long as middle tibia, much longer than hind basitarsus; apex of sheath black; anterior slope of mesoscutellum densely punctured; serrulae distinctly oblique, 6th and 7th serrulae each with 15-16 outer subbasal teeth. Gansu ……………………………… ……………………………… T. ruzickai **Haris** et **Roller, 2007**

Malar space 1.8 times longer than diameter of ocellus; distance between eyes below shorter than height of eye clearly; first abdominal tergite black, posterior 1/3 yellow brown; 7th and 8th antennomeres both about 2.3 times as long as broad; postocellar area almost 2 times as wide as long; labrum and clypeus 1.2-1.3 times wider than long; ovipositor as long as hind basitarsus, distinctly shorter than middle tibia; anterior slope of mesoscutellum impunctate, strongly shining; sheath entirely yellow brown; serrulae very flat, 6th and 7th serrulae each with 11-12 outer subbasal teeth. Henan ………………… T. yingkehei **sp. nov.**

Acknowledgments Our cordial thanks are due to Dr. Csöse Sándor of Hungarian Natural History Museum, Hungary for lending us the type of *Tenthredo ruzickai* Haris *et* Roller, and also to Dr. SHI Fu-Ming of Hebei University, China for the gift of sawfly specimens collected from Sichuan Province. I also wish to thank Mr. LI Ze-Jian of Central South University of Forestry and Technology, China for taking photographs.

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中国叶蜂属 (膜翅目, 叶蜂科) 二新种

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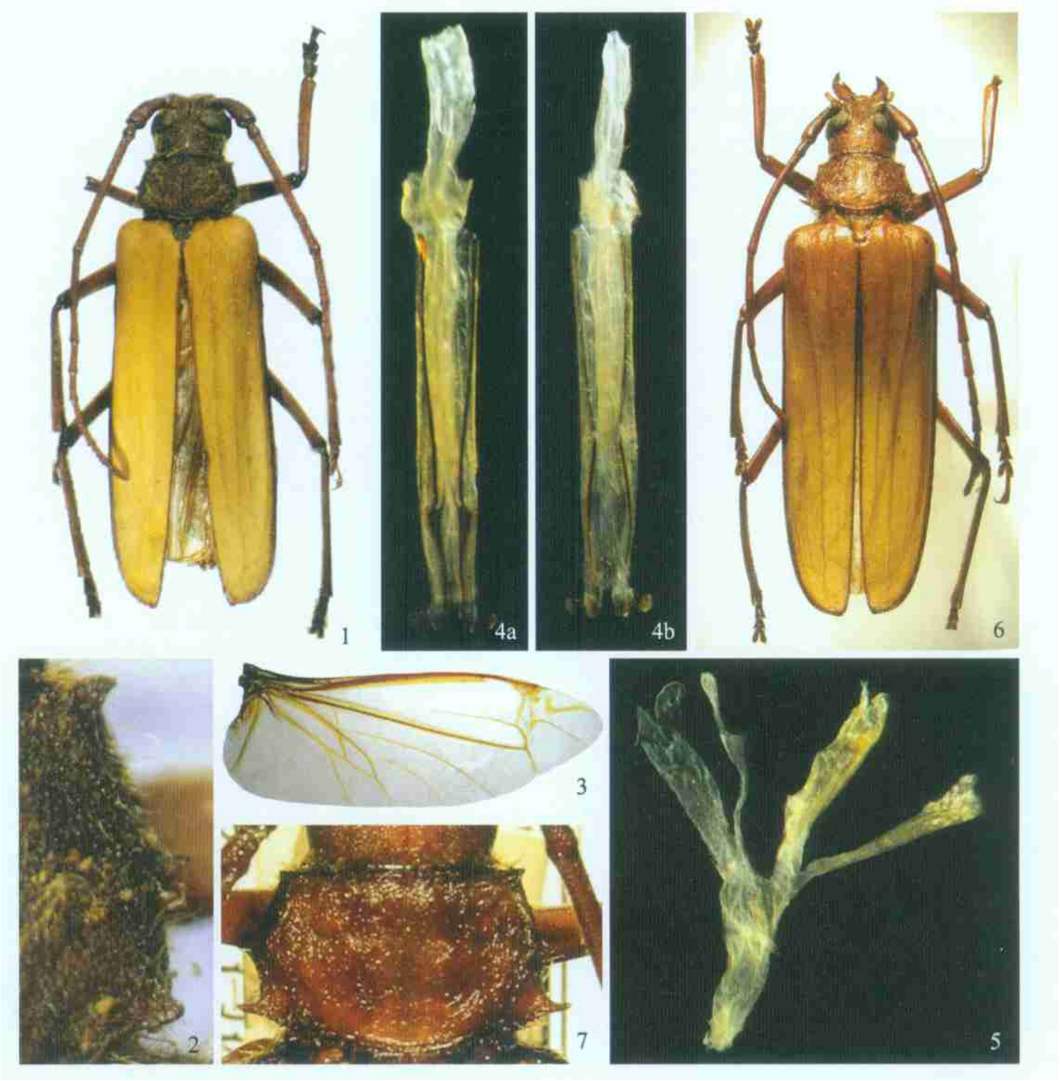
摘　要　记述采自中国河南和四川的叶蜂科叶蜂属2新种: 黄胸短角叶蜂 *Tenthredo yingkehei* sp. nov., 丹巴短角叶蜂 *Tenthredo danbanica* sp. nov.。根据模式标本补充描述了分布于甘肃的近缘种黑柄短角叶蜂 *Tenthredo ruzickai* Haris *et* Roller, 2007。新种模式标本保存于湖南长沙中南林业科技大学昆虫模式标本室。

关键词　膜翅目, 叶蜂科, 叶蜂属, 新种, 中国.

中图分类号　Q969.542.6

更正:

《动物分类学报》2009年第1期39页图1~7更正如下:



Figs. 1-7. *Megopis* (*Spinimegopis*) *guangxiensis* sp. nov. 1. Holotype, female (dorsal view). 2. Right side of pronotum (dorsal view). 3. Hind wing. 4-5. Female productive organs. 4. Ovipositor (a. Ventral view. b. Dorsal view). 5. Bursa copulatirx and spermatheca. Figs. 6-7. *Megopis* (*Aegdipton*) *piliventris* Gressitt, 1950. 6. Female (dorsal view). 7. Pronotum (dorsal view).